

Claims

- [c1] A kit having components comprising
- (A) a set of at least two elastomeric tapered stoppers of different diameters, each having an aperture of the same diameter therethrough; and
 - (B) a rigid conduit where flow therethrough is controlled by a valve, said conduit having a first end that has a fitting that is attachable to a pressurized water line and a second end that is insertable into the aperture of any of said stoppers in water-sealing engagement therewith.
- [c2] A kit according to Claim 1, including a 90° elbow tube having a first end into which said second end of said rigid conduit is insertable and having a second end that is insertable into the aperture of one of said stoppers in water-sealing engagement therewith.
- [c3] A kit according to Claim 1 wherein said set of stoppers comprises a stopper for plugging openings about $2\frac{1}{4}$ inches in diameter and a subset of about 3 to about 5 stoppers for plugging openings that have diameters of about $\frac{3}{4}$ to about $1\frac{5}{8}$ inches.

- [c4] A kit according to Claim 1 wherein said set of stoppers comprises five stoppers having sizes 3, 5, 6, 8, and 11.5.
- [c5] A kit according to Claim 1 wherein said stoppers are made from a synthetic styrene-butadiene rubber.
- [c6] A kit according to Claim 1 wherein said aperture through said stoppers has a diameter of about 3/8 to about 5/8 inches.
- [c7] A kit according to Claim 1, including a straight extension tube having a first end into which said second end of said rigid conduit is insertable and having a second end that is insertable into the aperture of any of said stoppers in water-tight engagement therewith.
- [c8] A kit according to Claim 1 wherein said stoppers are about $\frac{3}{4}$ to about $1\frac{1}{4}$ inches long and have a taper of about 5 to about 15 degrees.
- [c9] A kit according to Claim 1 that includes an instruction booklet giving directions on the use of said kit.
- [c10] A kit according to Claim 1, including a clear plastic container for holding said components of said kit.
- [c11] A kit according to Claim 1 wherein said rigid conduit is made of polyamide.

[c12] A method of clearing a line that carries water using a kit according to Claim 1 comprising

- (A) inserting said second end of said rigid conduit into a stopper that can plug an opening to said line;
- (B) connecting said first end of said rigid conduit to a source of water under pressure;
- (C) pressing said stopper against said opening; and
- (D) opening said valve, whereby said pressurized water flows through said line.

[c13] A method according to Claim 12 wherein said water is under a pressure of about 35 to about 65 psi.

[c14] A method according to Claim 12 wherein said line is a thru-hull, drain, discharge line, or cooling line for an engine, air conditioning, refrigeration, or water generation system on a water-going vessel.

[c15] A kit comprising

- (A) a large elastomeric tapered stopper that can plug a $2\frac{1}{4}$ inch diameter opening, said stopper having an aperture through the center thereof;
- (B) 3 to 5 small elastomeric tapered stoppers of different sizes that can plug openings that are about $\frac{3}{4}$ to about $1\frac{5}{8}$ inches in diameter, each small stopper having an aperture through its center that is the same diameter as the aperture through the center of

said large stopper; and

(C) a rigid conduit where water flow therethrough is controlled by a valve, said conduit having a first end that has a female fitting attachable to a pressurized water line and a second end that is insertable into the aperture of any of said stoppers in water-sealing engagement therewith.

[c16] A method of clearing a line that carries water using a kit according to Claim 15 comprising

(A) inserting said second end of said rigid conduit into a stopper that can plug an opening to said line;
(B) connecting said first end of said rigid conduit to a source of water under pressure;
(C) pressing said stopper against said opening; and
(D) opening said valve, whereby said pressurized water flows through said line.

[c17] A method according to Claim 16 wherein said line is a thru-hull, drain, discharge line, or cooling line for an engine, air conditioning, refrigeration, or water generation system on a water-going vessel.

[c18] A kit comprising

(A) five elastomeric tapered stoppers having sizes 3, 5, 6, 8, and 11.5, each stopper having an aperture of about ½ inch through its center;

(B) a rigid conduit where flow therethrough is controlled by a ball valve, said conduit having a first end that has a threaded female fitting attachable to a threaded male fitting of a pressurized water line and a second end that is insertable into the aperture of any of said stoppers in water-sealing engagement therewith;

(C) an elbow-shaped tube having a first end into which said second end of said rigid conduit is insertable and having a second end that is insertable into the aperture of any of said stoppers in water-sealing engagement therewith;

(D) a straight extension tube having a first end into which said second end of said rigid conduit is insertable and having a second end that is insertable into the aperture of any of said stoppers in water-tight engagement therewith;

(E) a booklet containing instructions for the use of said kit; and

(F) a clear plastic container for holding said stoppers, said conduit, said elbow-shaped tube, said extension tube, and said booklet.

[c19] A method of clearing a line that carries water using a kit according to Claim 18 comprising

(A) inserting said second end of said rigid conduit

into a stopper that can plug an opening to said line;
(B) connecting said first end of said rigid conduit to a source of water under pressure;
(C) pressing said stopper against said opening; and
(D) opening said valve, whereby said pressurized water flows through said line.

[c20] A method according to Claim 19 wherein said line is a thru-hull, drain, discharge line, or cooling line for an engine, air conditioning, refrigeration, or water generation system on a water-going vessel.